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514/54, 55

435/325-?

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of claims:**

1.-2. (canceled)

3. (new) A biocompatible poly- $\beta$ -1 $\rightarrow$ 4-N-acetylglucosamine comprising about 4,000 to about 150,000 N-acetylglucosamine monosaccharides covalently attached in a  $\beta$ -1 $\rightarrow$ 4 conformation and having a molecular weight of about 800,000 daltons to about 30 million daltons.

4. (new) The biocompatible poly- $\beta$ -1 $\rightarrow$ 4-N-acetylglucosamine of claim 3 having about 4,000 to about 15,000 N-acetylglucosamine monosaccharides covalently attached in a  $\beta$ -1 $\rightarrow$ 4 conformation, and having a molecular weight of about 800,000 daltons to about 3 million daltons.

5. (new) The biocompatible poly- $\beta$ -1 $\rightarrow$ 4-N-acetylglucosamine of claim 3 or 4 whose biocompatibility is determined by an elution test.

6. (new) The biocompatible poly- $\beta$ -1 $\rightarrow$ 4-N-acetylglucosamine of claim 5 which has an elution test score of 0.

7. (new) The biocompatible poly- $\beta$ -1 $\rightarrow$ 4-N-acetylglucosamine of claim 5 which has an elution test score of 1.

8. (new) The biocompatible poly- $\beta$ -1 $\rightarrow$ 4-N-acetylglucosamine of claim 5 which has an elution test score of 2.

9. (new) The biocompatible poly- $\beta$ -1 $\rightarrow$ 4-N-acetylglucosamine of claim 3 or 4 whose biocompatibility is determined by intramuscular implantation in rabbits.

10. (new) The biocompatible poly- $\beta$ -1 $\rightarrow$ 4-N-acetylglucosamine of claim 3 or 4 whose biocompatibility is determined by intracutaneous injection in rabbits.

11. (new) The biocompatible poly- $\beta$ -1 $\rightarrow$ 4-N-acetylglucosamine of claim 3 or 4 whose biocompatibility is determined by systemic injections in mice.

12. (new) A biocompatible poly- $\beta$ -1 $\rightarrow$ 4-N-acetylglucosamine comprising about 4,000 to about 150,000 N-acetylglucosamine monosaccharides covalently attached in

a  $\beta$ -1 $\rightarrow$ 4 conformation and having a molecular weight of about 800,000 daltons to about 30 million daltons in at least one N-acetylglucosamine monosaccharide has been deacetylated.

13. (new) The biocompatible poly- $\beta$ -1 $\rightarrow$ 4-N-acetylglucosamine of claim 12 having about 4,000 to about 15,000 N-acetylglucosamine monosaccharides covalently attached in a  $\beta$ -1 $\rightarrow$ 4 conformation, and having a molecular weight of about 800,000 daltons to about 3 million daltons in which at least one N-acetylglucosamine monosaccharide has been deacetylated.

14. (new) The biocompatible poly- $\beta$ -1 $\rightarrow$ 4-N-acetylglucosamine of claim 12 wherein at least about 25% to about 75% of the N-acetylglucosamine monosaccharides have been deacetylated.

15. (new) The biocompatible poly- $\beta$ -1 $\rightarrow$ 4-N-acetylglucosamine of claim 13 wherein at least about 25% to about 75% of the N-acetylglucosamine monosaccharides have been deacetylated.

16. (new) The biocompatible poly- $\beta$ -1 $\rightarrow$ 4-N-acetylglucosamine derivative of claim 12 wherein at least about 70% of the N-acetylglucosamine monosaccharides have been deacetylated.

17. (new) The biocompatible poly- $\beta$ -1 $\rightarrow$ 4-N-acetylglucosamine derivative of claim 13 wherein at least about 70% of the N-acetylglucosamine monosaccharides have been deacetylated.

18. (new) The biocompatible poly- $\beta$ -1 $\rightarrow$ 4-N-acetylglucosamine of any one of claims 12-17 whose biocompatibility is determined by an elution test.

19. (new) The biocompatible poly- $\beta$ -1 $\rightarrow$ 4-N-acetylglucosamine of claim 18 which has an elution test score of 0.

20. (new) The biocompatible poly- $\beta$ -1 $\rightarrow$ 4-N-acetylglucosamine of claim 18 which has an elution test score of 1

21. (new) The biocompatible poly- $\beta$ -1 $\rightarrow$ 4-N-acetylglucosamine of claim 18 which has an elution test score of 2.
22. (new) The biocompatible poly- $\beta$ -1 $\rightarrow$ 4-N-acetylglucosamine of any one of claims 12-17 whose biocompatibility is determined by intramuscular implantation in rabbits.
23. (new) The biocompatible poly- $\beta$ -1 $\rightarrow$ 4-N-acetylglucosamine of any one of claims 12-17 whose biocompatibility is determined by intracutaneous injection in rabbits.
24. (new) The biocompatible poly- $\beta$ -1 $\rightarrow$ 4-N-acetylglucosamine of any one of claims 12-17 whose biocompatibility is determined by systemic injections in mice.
25. (new) The biocompatible poly- $\beta$ -1 $\rightarrow$ 4-N-acetylglucosamine of any one of claims 12-17 which is immunoneutral.
26. (new) A biocompatible poly- $\beta$ -1 $\rightarrow$ 4-glucosamine comprising about 4,000 to about 150,000 glucosamine monosaccharides covalently attached in a  $\beta$ -1 $\rightarrow$ 4 conformation, and having a molecular weight of about 640,000 daltons to about 24 million daltons.
27. (new) The biocompatible poly- $\beta$ -1 $\rightarrow$ 4-glucosamine of claim 26 having about 4,000 to about 15,000 glucosamine monosaccharides covalently attached in a  $\beta$ -1 $\rightarrow$ 4 conformation, and having a molecular weight of about 640,000 daltons to about 2.4 million daltons.
28. (new) A biocompatible poly- $\beta$ -1 $\rightarrow$ 4-glucosamine comprising about 4,000 to about 150,000 glucosamine monosaccharides covalently attached in a  $\beta$ -1 $\rightarrow$ 4 conformation, wherein at least one glucosamine monosaccharide has been acetylated.
29. (new) The biocompatible poly- $\beta$ -1 $\rightarrow$ 4-glucosamine of claim 28 wherein at least about 25% to about 75% of the glucosamine monosaccharides have been acetylated.

30. (new) The biocompatible poly- $\beta$ -1 $\rightarrow$ 4-glucosamine of claim 28 wherein at least about 30% of the glucosamine monosaccharides have been acetylated.

31. (new) The biocompatible poly- $\beta$ -1 $\rightarrow$ 4-glucosamine of any one of claims 26-30 whose biocompatibility is determined by an elution test.

32. (new) The biocompatible poly- $\beta$ -1 $\rightarrow$ 4-glucosamine of claim 31 which has an elution test score of 0.

33. (new) The biocompatible poly- $\beta$ -1 $\rightarrow$ 4-glucosamine of claim 31 which has an elution test score of 1.

34. (new) The biocompatible poly- $\beta$ -1 $\rightarrow$ 4-glucosamine of claim 31 which has an elution test score of 2.

35. (new) The biocompatible poly- $\beta$ -1 $\rightarrow$ 4-glucosamine of any one of claims 26-30 whose biocompatibility is determined by intramuscular implantation in rabbits.

36. (new) The biocompatible poly- $\beta$ -1 $\rightarrow$ 4-glucosamine of any one of claims 26-30 whose biocompatibility is determined by intracutaneous injection in rabbits.

37. (new) The biocompatible poly- $\beta$ -1 $\rightarrow$ 4-glucosamine of any one of claims 26-30 whose biocompatibility is determined by systemic injections in mice.

WHAT IS CLAIMED IS:

1. A method for immunoisolation of a cell comprising:  
coating a cell/poly- $\beta$ -1-4-N-acetylglucosamine species, said  
5 cell/poly- $\beta$ -1-4-N-acetylglucosamine species comprising a  
poly- $\beta$ -1-4-N-acetylglucosamine species comprising about 4,000  
to about 150,000 N-acetylglucosamine monosaccharides  
covalently attached in a  $\beta$ -1-4 conformation, free of protein,  
substantially free of other organic contaminants,  
substantially free of inorganic contaminants, and having a  
10 molecular weight of about 800,000 daltons to about 30 million  
daltons within with at least one cell is encapsulated, with a  
coating having a polyelectrolyte charge opposite to the  
charge of the cell/poly- $\beta$ -1-4-N-acetylglucosamine species, so  
that the cell within the cell/poly- $\beta$ -1-4-N-acetylglucosamine  
15 species is immunoisolated.

2. The method of claim 1, wherein at least one  
acetylglucosamine monosaccharide of the poly- $\beta$ -1-4-N-  
acetylglucosamine species as been deacetylated.

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*cancelled  
in preliminary  
amdt.*

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Claims

**REMARKS**

The specification has been amended so that the title more accurately reflects the claimed subject matter.

Claims 1 and 2 have been canceled without prejudice. New claims 3-37 have been added to more particularly point out and distinctly claim that which Applicants regard as the invention. Support for claims 3-37 can be found in the specification, *inter alia*, at page 3, lines 8-14, page 24, lines 33-36, page 25, lines 14-29, page 42, line 34, and in Section 10, at pages 71-89. No new matter is added.

After entry of the amendments made herein, claims 3-37 will be pending in the present application.

**CONCLUSION**

Applicants respectfully request entry and consideration of the foregoing amendments and remarks.

Respectfully submitted,

Date: July 10, 2003

Laura A. Coruzzi 30,742  
Laura A. Coruzzi (Reg. No.)

By: Michael J. Ryan 41,283  
Michael J. Ryan (Reg. No.)

**PENNIE & EDMONDS LLP**  
1155 Avenue of the Americas  
New York, New York 10036-2711  
(212) 790-9090

Enclosures